



July 12, 2002

Mr. Bill Pennington
Project Manager
Energy Efficiency and Demand Analysis Division
California Energy Commission
1516 Ninth St. MS-26
Sacramento, CA 95814

RE: 2005 California Building Energy Efficiency Standards – July 18, 2002 workshop

Dear Bill:

I will not be able to attend the July 18, 2002 workshop that will cover a number of issues pertaining to the 2005 California Building Energy Efficiency Standards. In many of the reports that will be presented, there is a reference to having a HERS verification component. In many cases the HERS verification process is similar to the existing process, with the exception of sampling percentage, property type, etc. The purpose of this letter is to provide CHEERS® perspective on the proposed documents.

The specific documents that I am referring to are:

- Duct Sealing Requirements upon HVAC or Duct-System Replacement: Light Commercial Buildings (PG&E Codes and Standards Enhancement Report, July 2, 2002)
- Nonresidential Duct Sealing and Insulation (PG&E Codes and Standards Enhancement Initiative, July 2, 2002)
- Maximum Allowable Cooling Capacity – In cases where the exception for electrical input is used.
- Residential Ducts
- Residential Construction Quality for Attics: Ceiling Insulation, Air Barriers, Draft Stops, and Kneewalls.

CHEERS agrees with statements made in the reports that additional training will be needed. CHEERS is willing to assist with the appropriate training (either providing the training and/or developing the training). As was proven with the AB 970 standards, CHEERS is more than willing to assist in the implementation of the standards.

An issue that has arisen from these changes is the possible need for additional raters with the appropriate skill level. I presented information at a workshop that indicated the number of raters needed to support new construction activity was actually fairly small. As a point of reference, the math below supports this comment.

Approximate housing starts per year	100,000
Number of working days in a year	240
Approximate time to complete a test & verification by rater	2 hours (conservative)
Approximate number of verifications per day by one rater	3 (conservative)
Number of verifications by a rater per year (240*3)	720
Number of raters needed (100,000 / 720)	138 Raters

The above mathematical example assumes ALL homes are going to be tested and verified and that sampling would not be used. If sampling were factored in at 15%, then the number of raters needed to support the ENTIRE new construction market would be less than 25 raters. CHEERS currently has nearly 300 raters trained and certified. I understand that we would not be able to support the entire market with just 25 raters, but clearly CHEERS can support the market.

During the discussion of the AB 970 standards, questions were raised on how fast CHEERS could train and certify individuals to meet the demand. In July 1999, CHEERS had approximately 60 trained and certified raters. Due to the changes brought about by AB970, CHEERS developed training and scheduled and trained individuals to be raters. CHEERS also provided update classes to raters, informing them of the changes. CHEERS proved that it was able to meet the demand for raters and develop the necessary infrastructure to support the market.

There is a significant synergistic advantage to having the rater provide additional verification activities on other property types. The most significant advantage is the rater can now provide additional services to builders, building owners and others. This becomes a value added component that many raters have not had in the past and could increase the demand to become a rater. A requirement for those raters that are already certified would be that they would attend additional training and CHEERS would implement a new certification indicating the rater has the skill to verify non-residential properties.

A final rumor has been flying around: No builder is installing measures that require HERS verifications. AB 970 was effective June 2001, however there was a grandfather provision that exempted large production builders from needing to comply until 1/1/02 (which is approximately 80% of the market). This means that large builders could pull permits in December 2001. Permits in most cases are good for 6 months. So the builder that pulls the permits in December 2001 would have had to build their homes by June 2002 (last month). If the builder submitted documentation for permits during the 1st quarter of 2002, the documents could include HERS-verified features in the home. If the home does require HERS verification, the rater may not be engaged until late summer or early fall to complete the verification. An additional issue is the amount of work CHEERS raters are doing. During the month of May, raters performed approximately 500 verifications. Dividing 100,000 starts per year by 12 months a flat line estimate is approximately 8,500 starts per month. Using this simplified approach raters are now performing verifications for nearly 6% of the market. This number is lower since AB 970 has just recently impacted 80% of the market and those homes have yet to come on line.

I hope this information is useful. Again, I apologize for not being able to attend, but would welcome the opportunity to respond to any issues that come up during the workshop when I return to the office July 24, 2002.

Sincerely,

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